

I CLAIM:

1. A method of fabricating a printhead for an ink jet printer, the printhead including:
a substrate carrying an array of nozzles for ejecting ink onto media to be printed; and
an apertured nozzle guard to inhibit damaging contact with the nozzles, the method
comprising the steps of:

forming the nozzles on the substrate using material etching and deposition techniques
such that the nozzles are reinforced by sacrificial material;

positioning the apertured nozzle guard over the exterior of the nozzles such that its
apertures are in close registration with the nozzles; and subsequently,
etching away the sacrificial material reinforcing the nozzles.

2. A method according to Claim 1 wherein alignment formations are formed on the
substrate, the alignment formations being configured for engagement with complementary
formations on the apertured nozzle guard; wherein,

engagement between the alignment formations and the complementary formations
holds the apertures in close registration with the nozzles such that the guard does not
obstruct the normal trajectory of ink ejected from the nozzles onto the media.

3. A method according to Claim 1 wherein etching plasma is injected through one or
more of the apertures in the nozzle guard to release the sacrificial material protecting the
nozzles, the released sacrificial material and etching plasma flushing out through the
apertures in the nozzle guard.

4. A method according to Claim 3 wherein the etching plasma is oxygen plasma and the
sacrificial material is polyimide.

5. A method according to Claim 4 wherein an inorganic seal is provided between the
alignment formation and the complementary formation

6. A method according to Claim 1 wherein the substrate is a silicon wafer.

7. A method according to Claim 6 wherein the nozzle guard has a shield containing the apertures, the shield being spaced from the silicon substrate by integrally formed struts extending from the shield for engagement with the alignment formations. .

5 8. A method according to Claim 7 wherein the alignment formations are ridges on the silicon substrate positioned to engage the struts to maintain the apertures in alignment with the nozzle array.

9. A method according to Claim 1 wherein the nozzle guard further includes fluid inlet openings for directing fluid through the passages, to inhibit the build up of foreign particles on the nozzle array.

10. A method according to Claim 9 wherein the fluid inlet openings are in the struts.